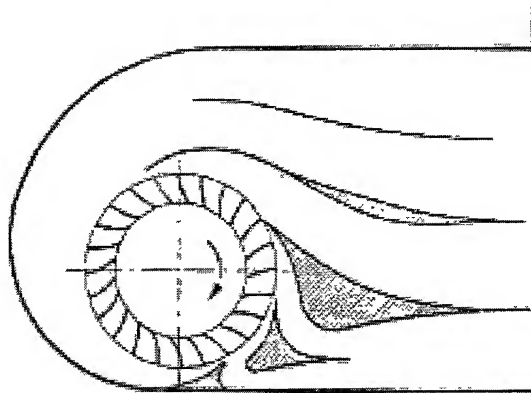


$\cong 1$  wheel  
diameter

Figure 1a (Prior Art)  
Guide vanes in diffuser discharge



$\cong 2x$  wheel  
diameter

Figure 1b (Prior Art)  
High aspect ratio discharge

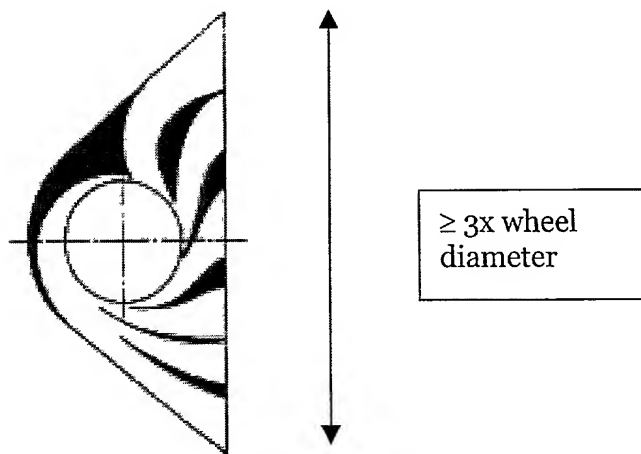


Figure 1c (Prior Art)  
Very high aspect ratio discharge

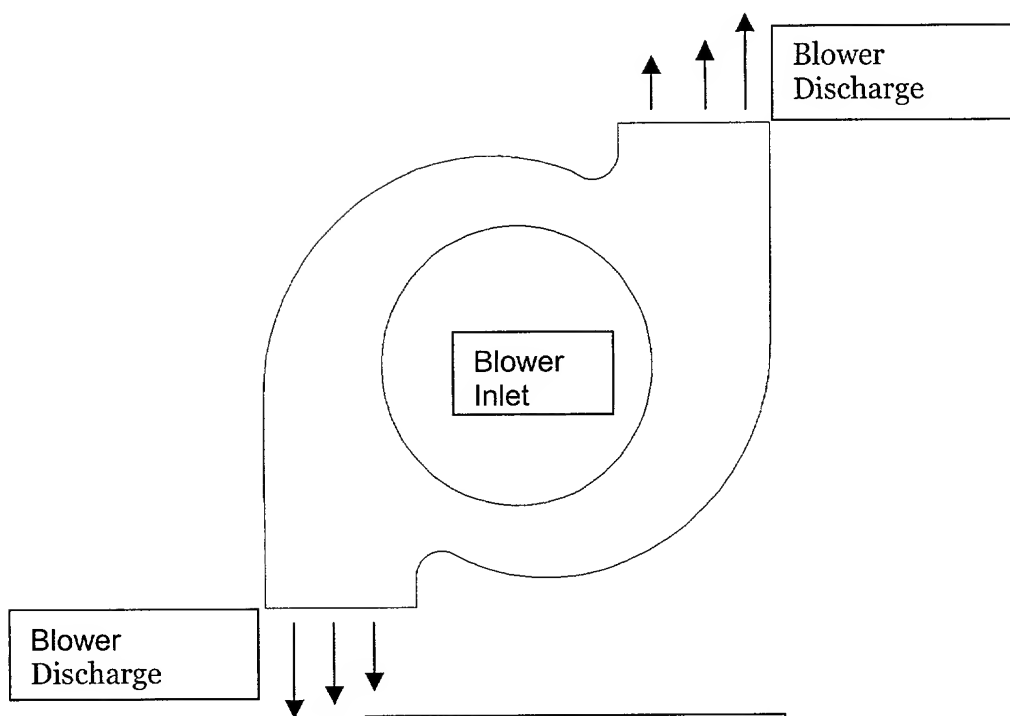


Figure 2a (Prior Art)  
180° opposed discharges

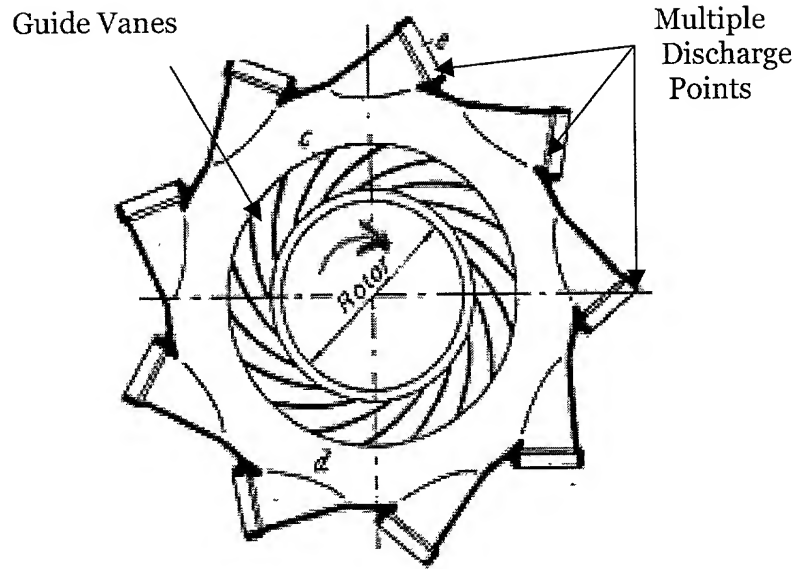


Figure 2b (Prior Art)  
Vane diffuser w/ multiple discharges

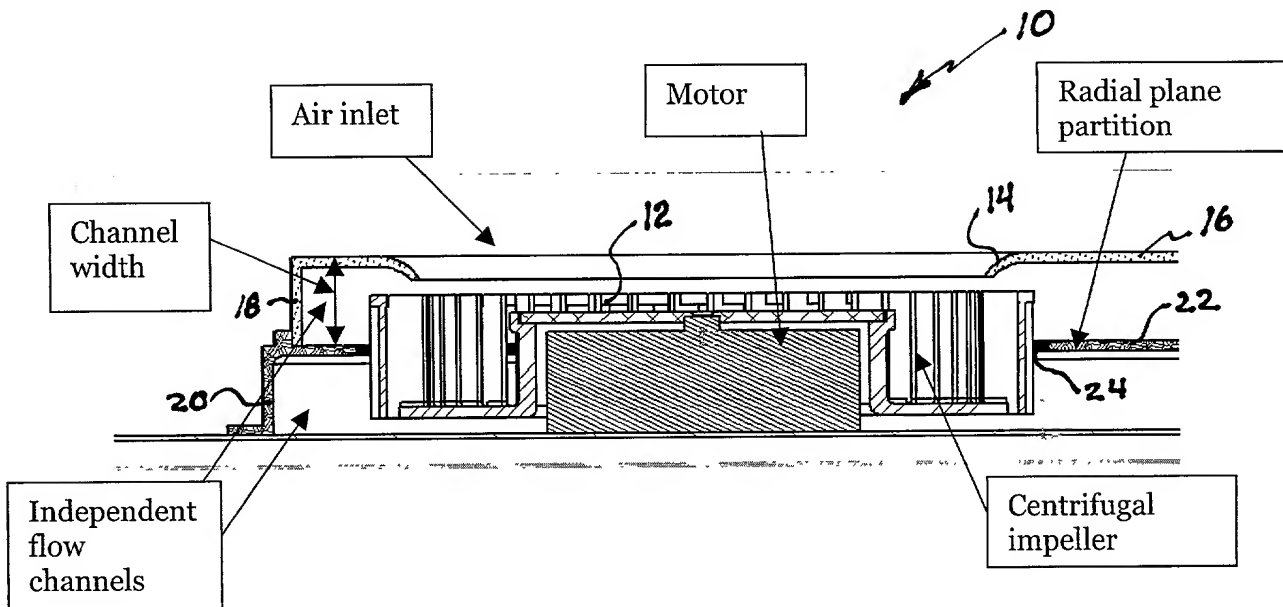


Figure 3  
New design approach

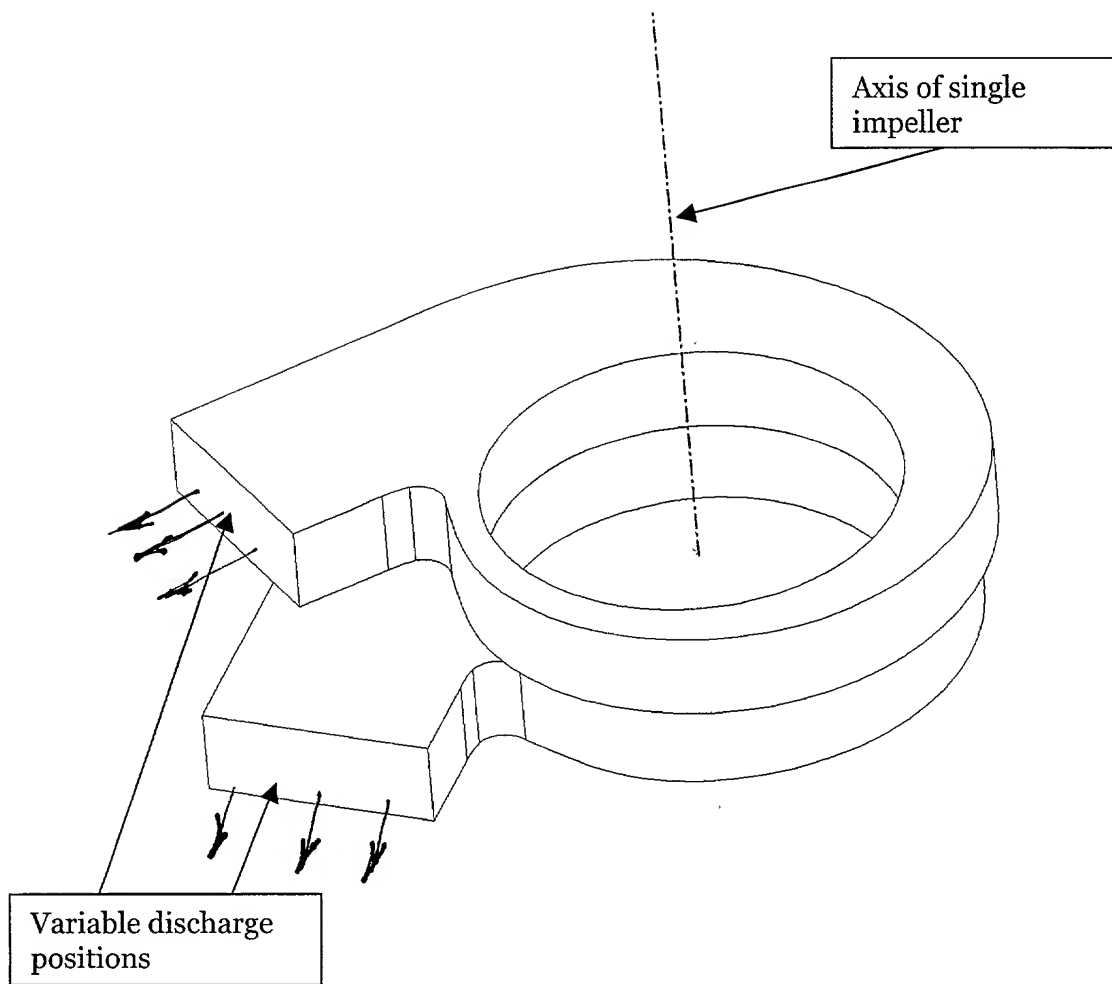


Figure 4

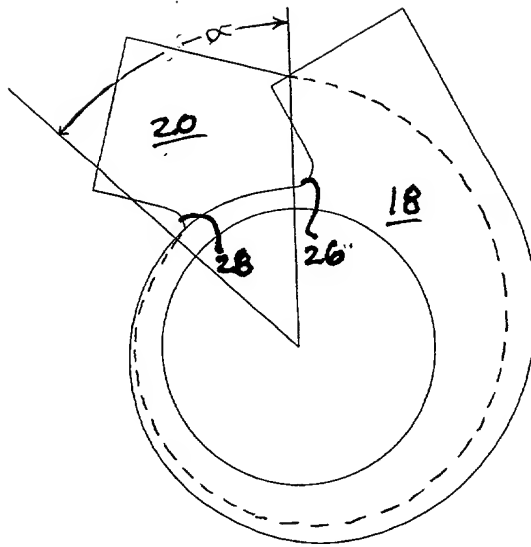


Figure 5  
Infinitely variable scroll cutoff angle

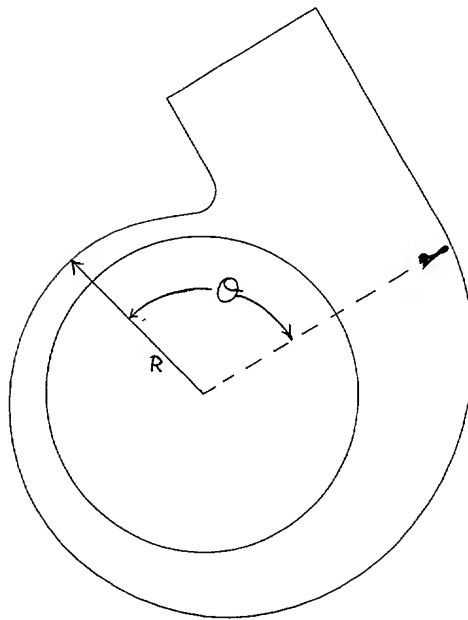


Figure 6  
Scroll expansion

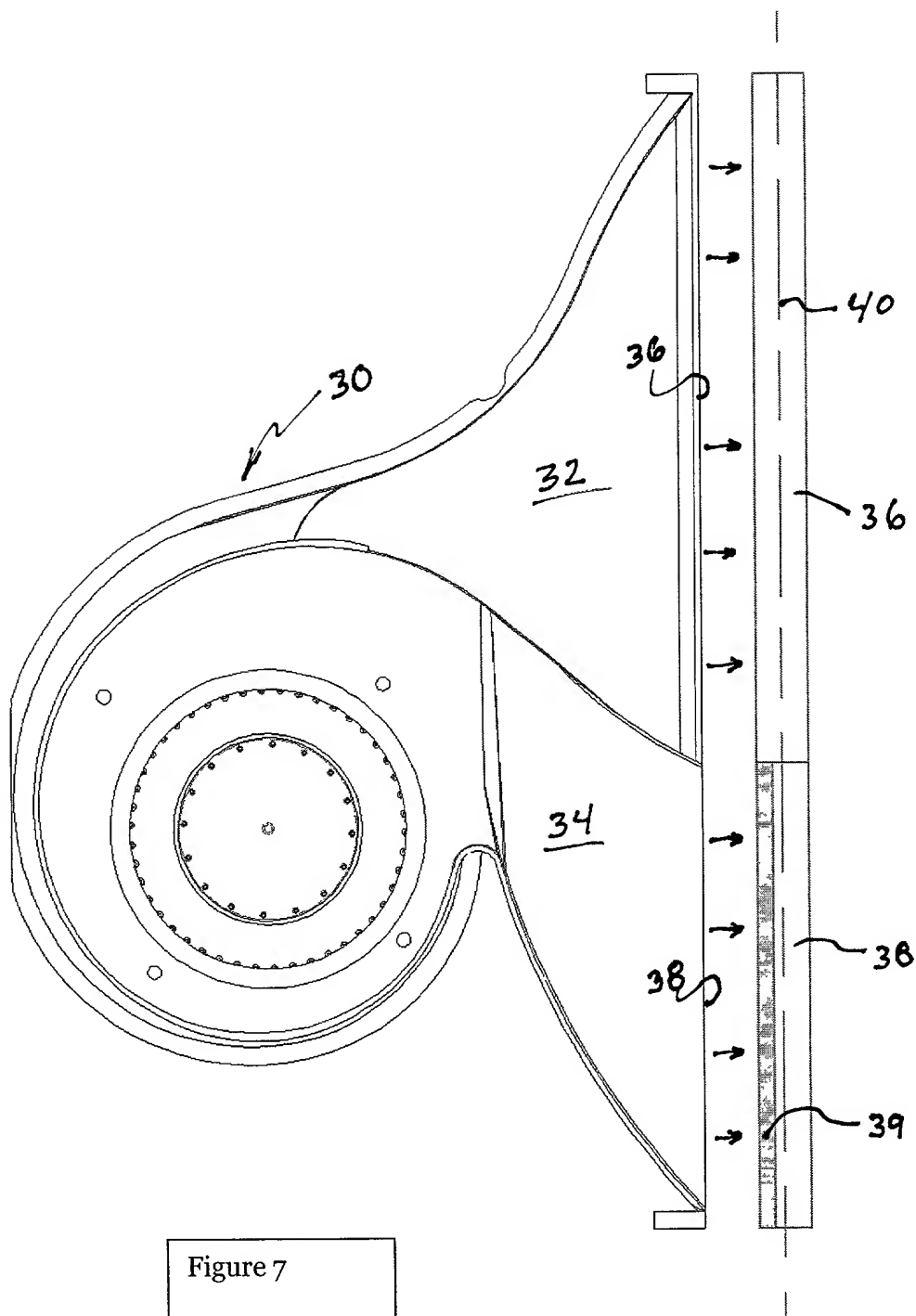


Figure 7

Figure 8

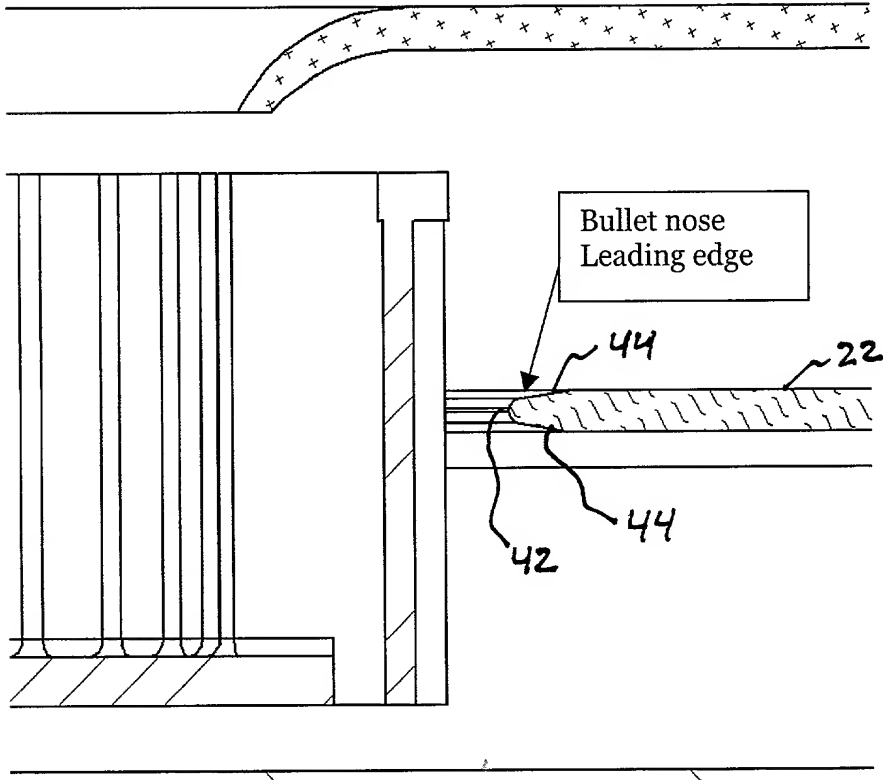


Figure 9  
Radial plane partition

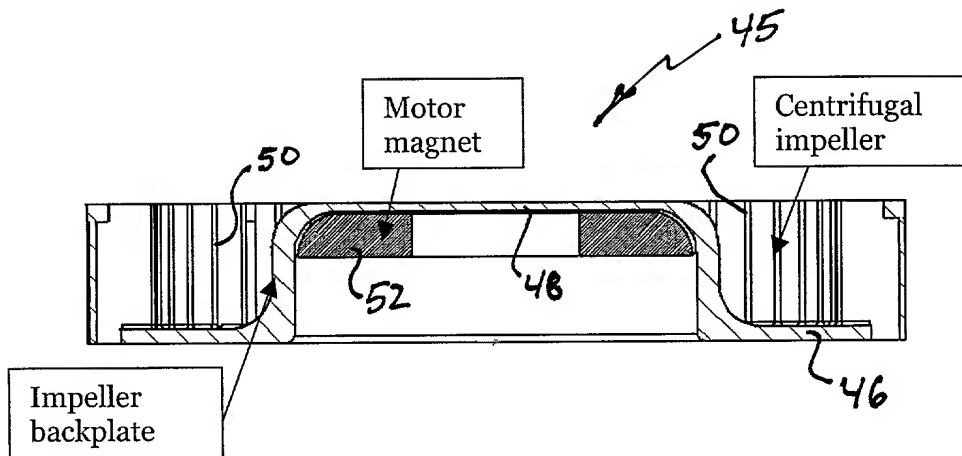


Figure 10  
Impeller w/ motor magnet